

# Work Order ID 96595

**\*96595\***

Page 1

January-31-13 10:53:50 AM

Item ID: D3650-041 Accept

\*N900040100\* Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Tunnel Top Panel Assembly

Start Date: 1/31/13 Start Qty: ~~1.00~~ \*1\*

Cust Item ID:

Required Date: 2/22/13 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 13-02-01 Tooling:

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3650	Rev E
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100	Pick Kit	0.00							
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**\*100\***

Packaging	Memo	0.00				1	0		FF 13-06-20
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Packaging

110	Small Fab	0.00							
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**\*110\***

Small Fab	Memo	0.00				1	0		FF 13-06-20
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Small Fab

1-Assemble as per dwg D36502- Seal all mating surfaces and all gaps using  
Proseal 700 fire wall sealantas per dwg D3650Batch: 1123900

120	QC5- Inspect part completeness to step on W/O	0.00							
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**\*120\***

QC	Memo	0.00				1			
----	------	------	--	--	--	---	--	--	--

Quality Control

27  
13-06-20

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  <div style="display: flex; justify-content: space-around;"> <div>Rework <input type="checkbox"/></div> <div>Skid-tube <input type="checkbox"/></div> <div>Crosstube <input type="checkbox"/></div> <div>Water Jet <input type="checkbox"/></div> <div>Engineering <input type="checkbox"/></div> </div> <div style="display: flex; justify-content: space-around;"> <div>Scrap <input type="checkbox"/></div> <div>Machining <input type="checkbox"/></div> <div>Small Fab <input type="checkbox"/></div> <div>Prod. Eng. Coord. <input type="checkbox"/></div> <div>Quality <input type="checkbox"/></div> </div> <div style="display: flex; justify-content: space-around;"> <div>Use-as-is <input type="checkbox"/></div> <div>Thermoforming <input type="checkbox"/></div> <div>Finishing <input type="checkbox"/></div> <div>Rec/Store/Packaging <input type="checkbox"/></div> <div>Other <input type="checkbox"/></div> </div> <div style="display: flex; justify-content: space-around;"> <div>Work Order Update <input type="checkbox"/></div> <div>Large Fab <input type="checkbox"/></div> <div>Composite <input type="checkbox"/></div> <div>Supplier <input type="checkbox"/></div> </div>	
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other

# Work Order ID 96595

**\*96595\***

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Item ID:	D3650-041	Accept	<b>*N900040100*</b>	Setup	Start	<b>*NS1*</b>
Revision ID:					Stop	<b>*NS2*</b>
Item Name:	Tunnel Top Panel Assembly					
Start Date:	1/31/13	Start Qty:	1.00			
Required Date:	2/22/13	Req'd Qty:	1.00			
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	<b>*NR1*</b>
	QC:	Date:	SPC (Y/N):	Date:		Stop	<b>*NR2*</b>

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>ST183</u>	0.00							
<b>*130*</b>									
Packaging	Memo	0.00				<u>1X</u>		<u>M.D. 13-06-20</u>	<u>84</u>
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00				<u>MLJ</u>		<u>13-06-21</u>	
Quality Control									

RL 13-06-21

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  <div style="display: flex; justify-content: space-around;"> <div>             Rework <input type="checkbox"/>              Scrap <input type="checkbox"/>              Use-as-is <input type="checkbox"/>              Work Order Update <input type="checkbox"/> </div> <div>             Skid-tube <input type="checkbox"/>              Machining <input type="checkbox"/>              Thermoforming <input type="checkbox"/>              Large Fab <input type="checkbox"/> </div> <div>             Crosstube <input type="checkbox"/>              Small Fab <input type="checkbox"/>              Finishing <input type="checkbox"/>              Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/>              Prod. Eng. Coord. <input type="checkbox"/>              Rec/Store/Packaging <input type="checkbox"/>              Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/>              Quality <input type="checkbox"/>              Other <input type="checkbox"/> </div> </div>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-around;"> <div>             Skid-tube <input type="checkbox"/>              Machining <input type="checkbox"/>              Thermoforming <input type="checkbox"/>              Large Fab <input type="checkbox"/> </div> <div>             Crosstube <input type="checkbox"/>              Small Fab <input type="checkbox"/>              Finishing <input type="checkbox"/>              Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/>              Prod. Eng. Coord. <input type="checkbox"/>              Rec/Store/Packaging <input type="checkbox"/>              Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/>              Quality <input type="checkbox"/>              Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
<b>FAULT CATEGORY</b>											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other		

# Picklist Print

January-31-13 10:53:49 AM

Page 1

Work Order ID: 96595

Parent Item: D3650-041

Parent Item Name: Tunnel Top Panel Assembly

Start Date: 1/31/13

Required Date: 2/22/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 07-11-12 EC verified by: DD  
IPP Rev:B Ecn 1113P 08-01-22 DD verified by:EC  
IPP Rev:C Ecn 1162 08-04-02 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C3A Bolt		Purchased	No			110	Each	2,531.0000	8	8		FF 13-06-20	
				<u>Location</u> 124417		<u>Loc Qty</u>	<u>Loc Code</u>			8			
				ST350	124028	2531							
					124028	531							
					124417	2000							
D3650-1 Aft Panel		Manufactured	No	94574		110	Each	0.0000	1	1		FF 13-06-20	
D3650-3 Center Panel		Manufactured	No	94795		110	Each	10.0000	1	1		FF 13-06-20	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				ST189		10							
				94795		10							
D3650-5 Fwd Panel		Manufactured	No	94570		110	Each	0.0000	1	1		FF 13-06-20	
NAS1149C0363R Washer		Purchased	No			100	Each	3,288.0000	8	8		FF 13-06-20	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				FP001		1126							
				114742		1126							
				ST292		2162							
				114742		258							
				122063		18							
				122441		1886				8			

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

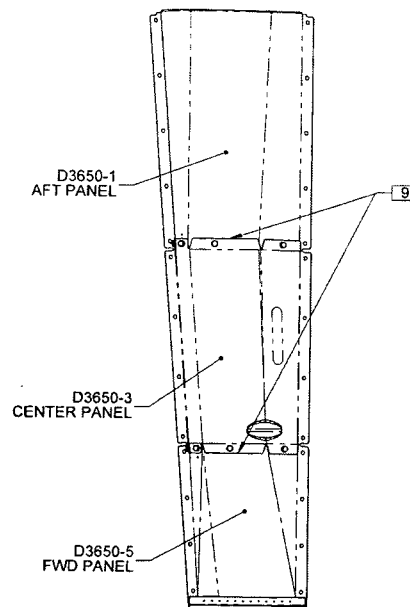
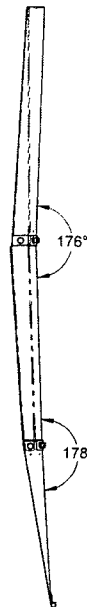
DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>				
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data <input type="checkbox"/>										
Equip/Tooling <input type="checkbox"/>										
Operator <input type="checkbox"/>										
Material <input type="checkbox"/>										
Setup <input type="checkbox"/>										
Other <input type="checkbox"/>										
Process <input type="checkbox"/>										
Supplier <input type="checkbox"/>										
Training <input type="checkbox"/>										
Unapproved <input type="checkbox"/>										
<b>FAULT CATEGORY</b>										
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other	

QTY -041	PART NUMBER	DESCRIPTION
X	D3650-041	TUNNEL TOP PANEL ASSEMBLY
1	D3650-1	AFT PANEL
1	D3650-3	CENTER PANEL
1	D3650-5	FWD PANEL
8	AN3C-3A	BOLT
8	AN960C10	WASHER

E

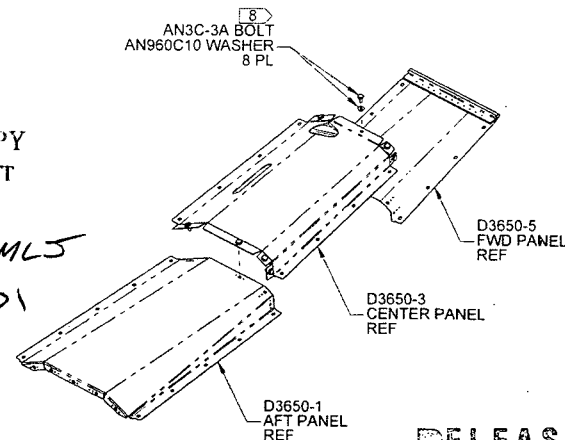


**D3650-041 TUNNEL TOP PANEL ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 4.3 lbs
- 8) TORQUE FASTENERS 15 TO 25 in-lb
- 9) SEAL ALL MATING SURFACES AND ALL GAPS USING PROSEAL 700 FIRE WALL SEALANT

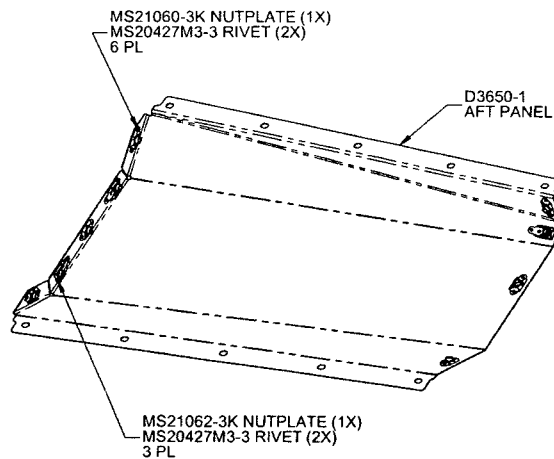
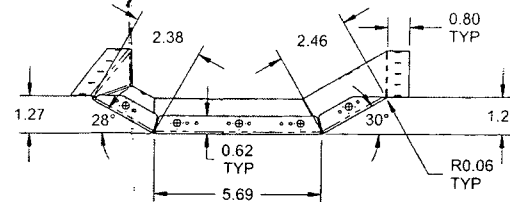
RECEIVED  
TO  
ENTERING  
FROM LED COPY  
REVISION  
NOTICE  
ORDER  
96595-ML5  
13-02-01



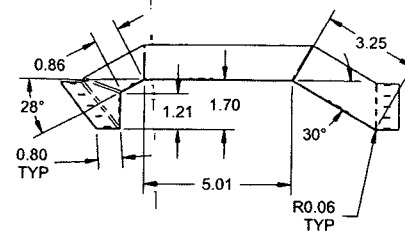
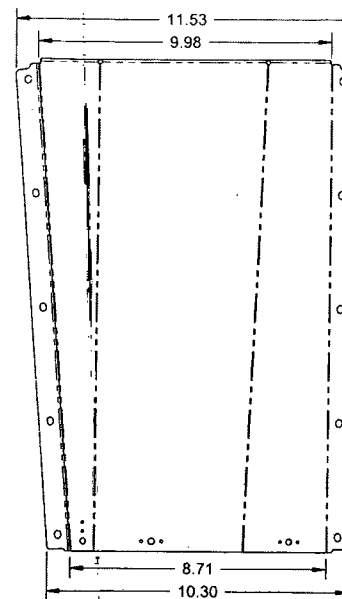
**RELEASED**  
2012-10-09

E	REVISED D3650-3: 0.040 IN THICKNESS WAS 0.018. MINOR DIMENSIONAL CHANGES AS A RESULT.	MB	12.10.01
D	D3650-11 REPLACED WITH AN EMBOSS. PAGE 4 DELETED. D3650-3 BEND RELIEFS CHANGED TO TRIANGULAR SHAPE AT BOTH ENDS. D3650-3 HOLES CHANGED TO SLOTS. ALL NOTES UPDATED TO CONFORM TO QSI 043. TIGHTENED CUT TOLERANCES IN ALL FLAT PATTERNS. DEO D3650-C-1 INCORPORATED.	RP	12.08.12
C	REFORMATTED TO NEW STANDARDS; RELOCATED PART LIST (ZN D2-2); ADDED SECTION VIEW J-J & REVISE DIMENSIONS (ZN B7-5, C4-5); ADDED RECESS LOCATION & REVISED DIMENSIONS (ZN C6-6, D5-6); MS20615-4M5 WAS CR3523-4-03 & NAS1149CN432R WAS AN960C4 (ZN D5-7, B5-7, B8-7).	RF	08.10.14
B	SHEETS 1, 2 & 7: UPDATED FASTENER QUANTITIES; UPDATED VIEWS SHEETS 3 & 8: REMOVED/RELOCATED HOLES; UPDATED VIEWS SHEET 4: 1.8 WAS 1.5; 1.0 WAS 0.8; UPDATED VIEW; ADDED NOTE 8 SHEET 5: REMOVED NOTE IN C6 & ASSOCIATED DIMS; UPDATED VIEWS SHEET 6: REMOVED/RELOCATED HOLES & ADDED CUTOFF TO D3650-3F; MOVED D3650-11/11F TO SHEET 9; ADDED DETAIL I SHEET 9: RELOCATED D3650-11/11F FROM SHEET 6; UPDATED DIMS OF D3650-11/11F	RF	08.01.07
A	NEW ISSUE	RF	07.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D3650</b> REV. E SHEET 1 OF 8 TITLE <b>TOP PANEL ASSEMBLY</b> SCALE NTS COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	MB		
CHECKED	RP		
MFG. APPR.	RP		
APPROVED	RP		
DE APPR.	RP		
DATE	12.10.01		

QTY -1	PART NUMBER	DESCRIPTION
X	D3650-1	AFT PANEL
1	D3650-1B	AFT PANEL BENT PART
18	MS20427M3-3	RIVET
6	MS21060-3K	NUTPLATE
3	MS21062-3K	NUTPLATE



**D3650-1 AFT PANEL**



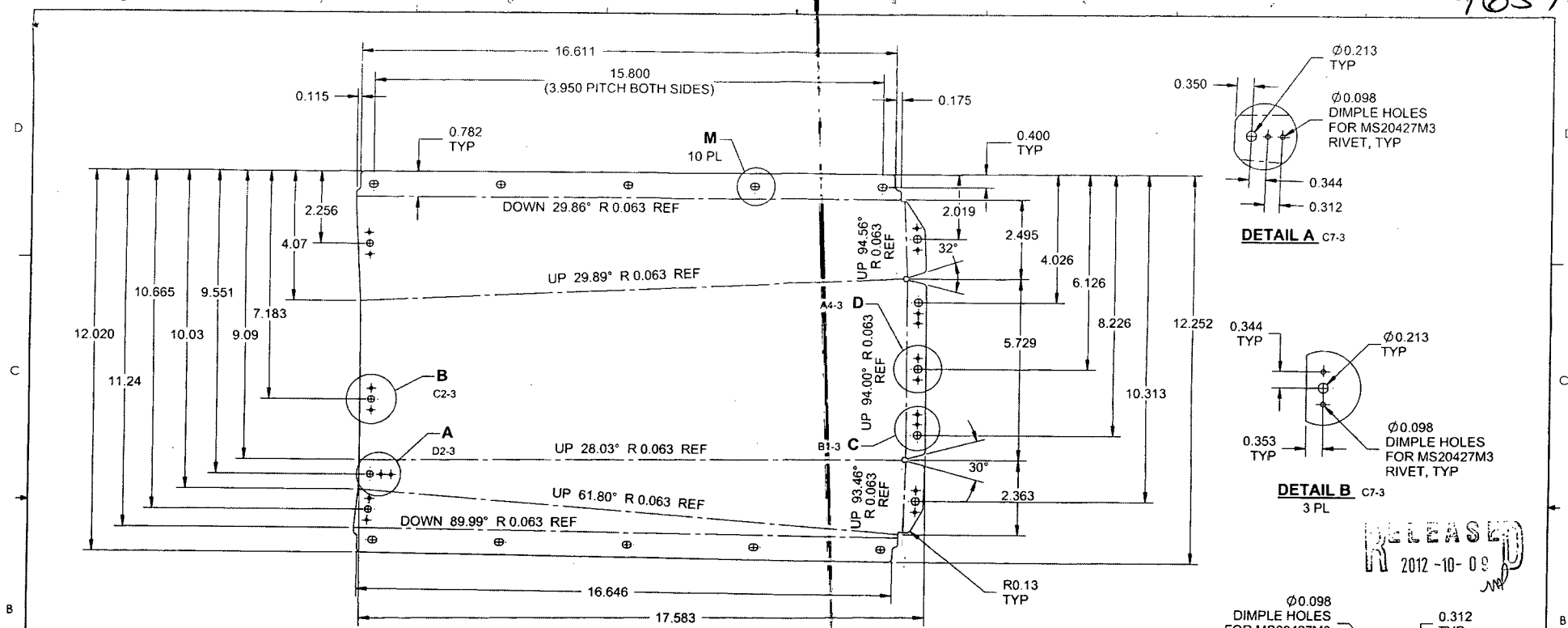
**D3650-1B AFT PANEL BENT PART**

- NOTES:**
- 1) MATERIAL: MAKE FROM D3650-1F
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 1.3 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RP	DRAWING NO.	REV. E
MFG. APPR.	RP	<b>D3650</b>	SHEET 2 OF 8
APPROVED	RP	TITLE	SCALE
DE APPR.	RP	<b>TOP PANEL ASSEMBLY</b>	NTS
DATE	12.10.01	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	



96595



**D3650-1F AFT PANEL (FLAT PATTERN)**

**DETAIL A** C7-3

**DETAIL B** C7-3  
3 PL

RELEASED  
2012-10-09





**DETAIL C** C4-3  
2 PL

**DETAIL D** C4-3  
3 PL

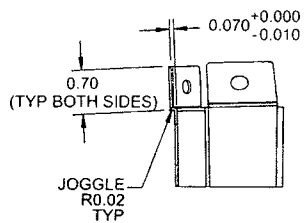
**DETAIL M**

**NOTES:**

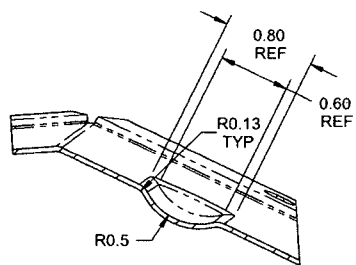
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S26GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.3 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		<b>D3650</b>	SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		<b>TOP PANEL ASSEMBLY</b>	NTS
DATE	12.10.01	COPYRIGHT © 2007 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

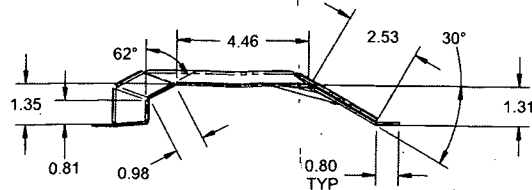
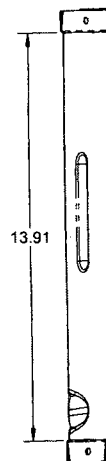
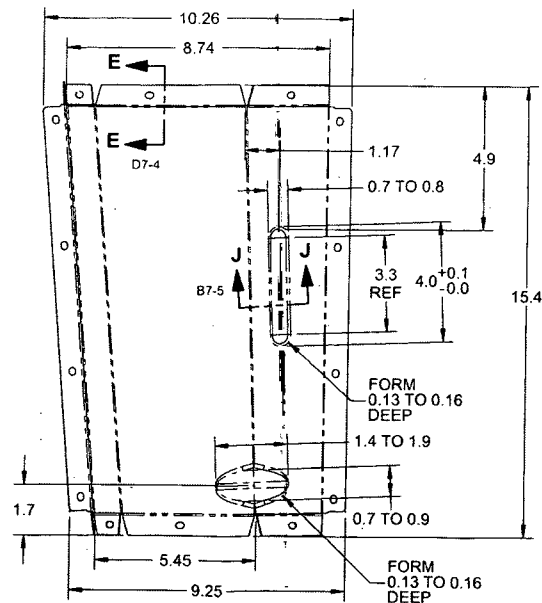
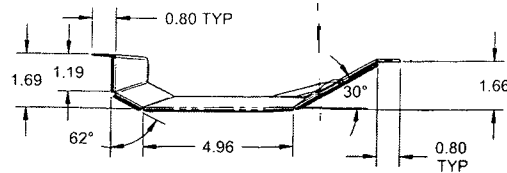
96595



**SECTION E-E** C5-4



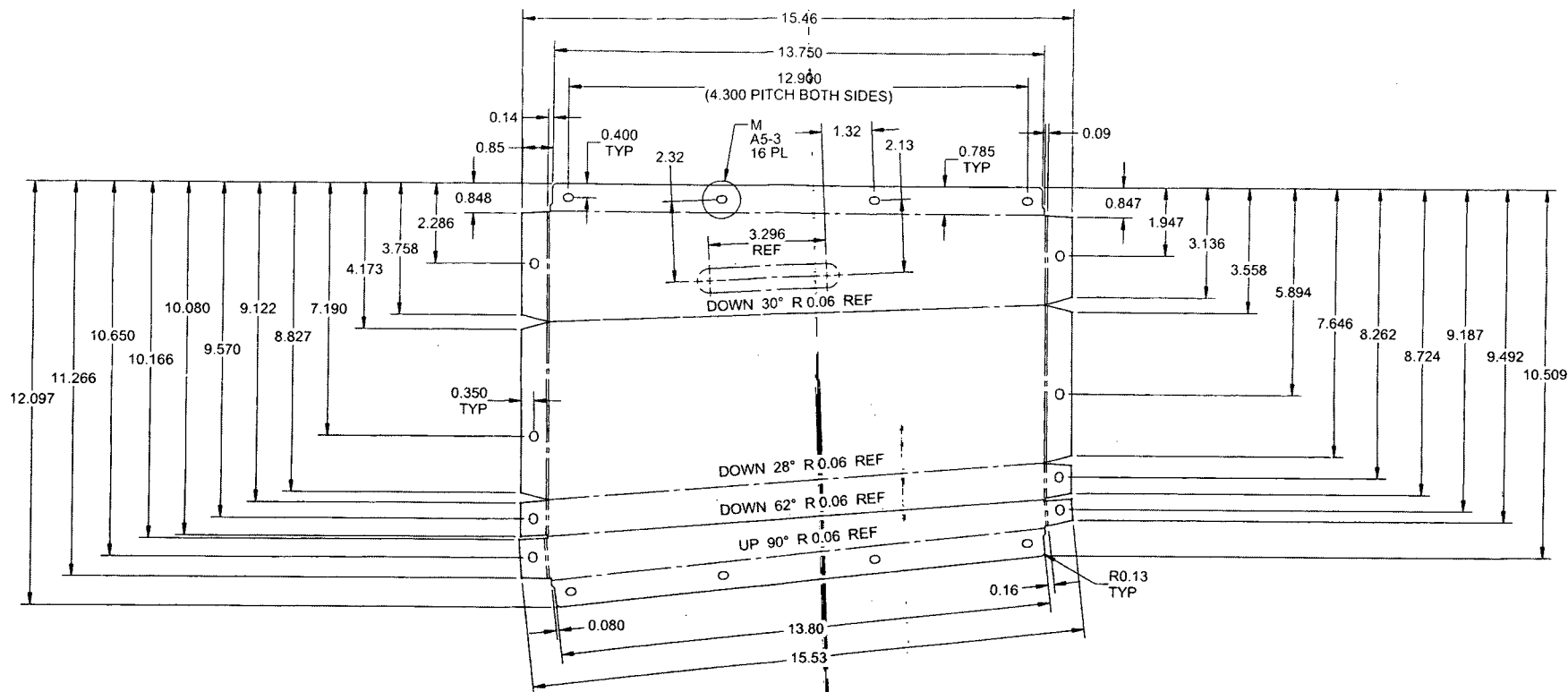
**SECTION J-J** C4-4



**D3650-3 CENTER PANEL**

- NOTES:**
- 1) MATERIAL: MAKE FROM D3650-3F
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 1.98 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MB	DRAWING NO.	REV. E
MFG. APPR.	MB	D3650	SHEET 4 OF 8
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	TOP PANEL ASSEMBLY	NTS
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**D3650-3F CENTER PANEL (FLAT PATTERN)**

NOTES:

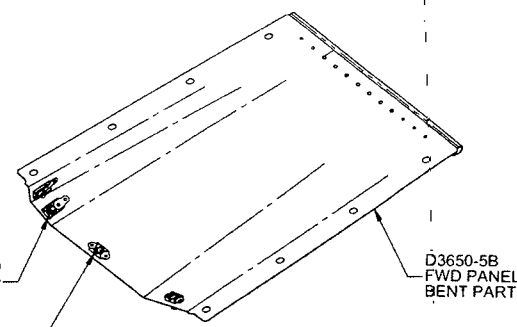
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.040 THICK (20 GAUGE) SHEET,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S20GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.98 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA  DRAWING NO. <b>D3650</b>  TITLE <b>TOP PANEL ASSEMBLY</b>  COPYRIGHT © 2007 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS RELEASED UNDER THE PATENT COOPERATION TREATY (PCT) AND IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE LTD.</small>	REV. 1
DRAWN	MB		SHEET 5 OF 5
CHECKED	<i>[Signature]</i>		SCALE
MFG. APPR.	<i>[Signature]</i>		NTS
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	12.10.01		

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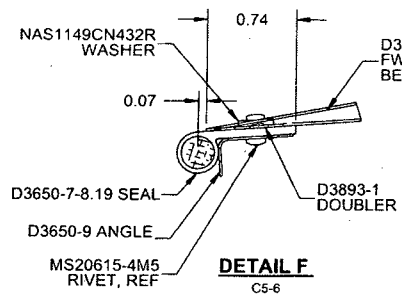
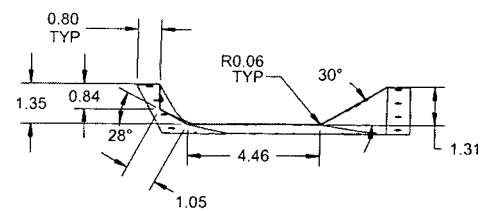
QTY	PART NUMBER	DESCRIPTION
5	D3650-5	FWD PANEL
1	D3650-5B	FWD PANEL BENT PART
1	D3650-7-8.19	SEAL
1	D3650-9	ANGLE
1	D3893-1	DOUBLER
12	NAS1149CN432R	WASHER
12	MS20615-4M5	RIVET
8	MS20427M3-3	RIVET
2	MS21060-3K	NUTPLATE
2	MS21062-3K	NUTPLATE

MS21062-3K NUTPLATE (1X)  
MS20427M3-3 RIVET (2X)  
2 PL



D3650-5B  
FWD PANEL  
BENT PART

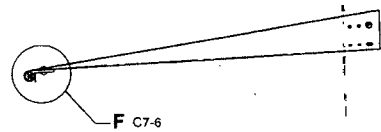
MS21060-3K NUTPLATE (1X)  
MS20427M3-3 RIVET (2X)  
2 PL



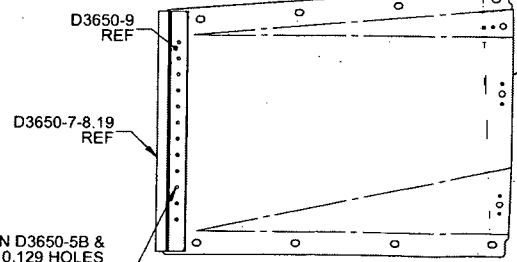
**DETAIL F**  
C5-6

D3650-5  
FWD PANEL  
BENT PART

CENTRE D3650-7/-9 ON D3650-5B &  
TRANSFER Ø0.129 HOLES  
FROM D3650-9 TO D3650-7 & D3650-5B  
AS SHOWN  
INSTALL  
MS20615-4M5 RIVET  
NAS1149CN432R WASHER  
12 PL

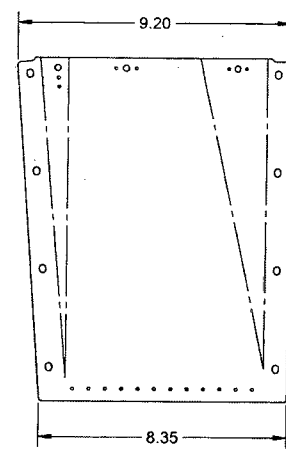


**F C7-6**



**D3650-5 FWD PANEL**

D3650-5B  
FWD PANEL  
BENT PART  
REF



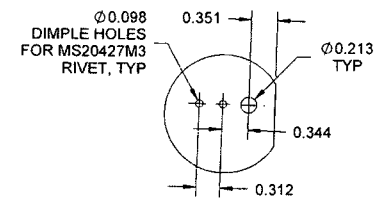
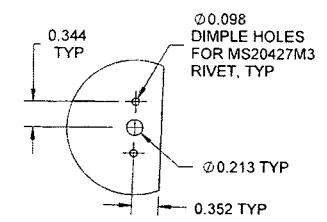
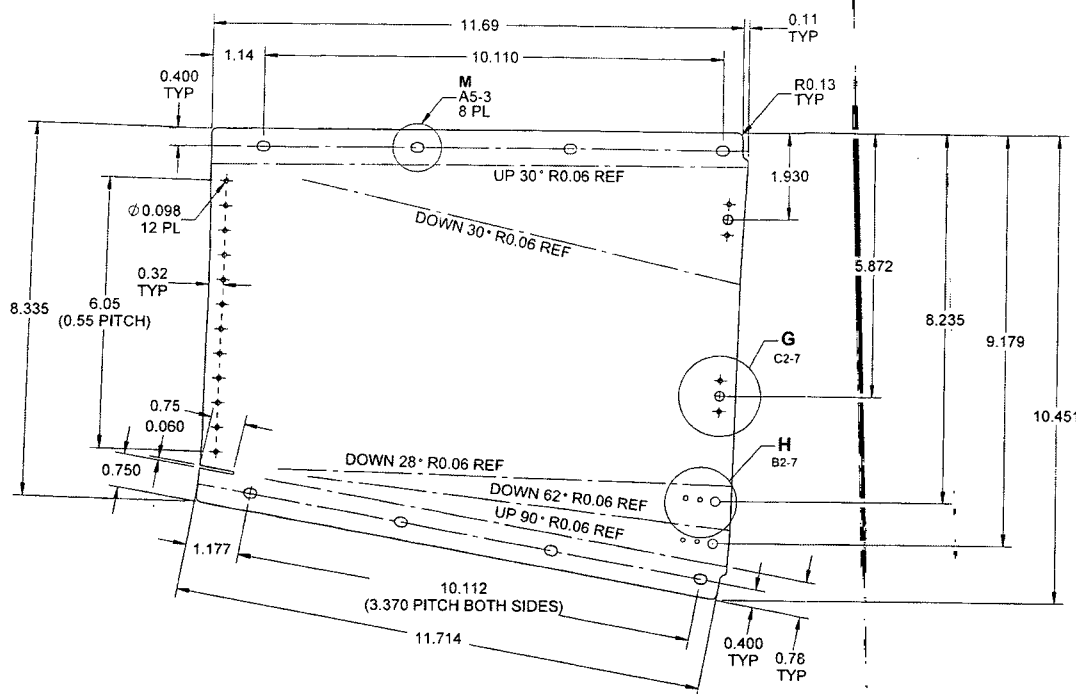
**D3650-5B FWD PANEL BENT PART**

RELEASED  
2012-10-09

- NOTES:
- 1) MATERIAL: MAKE FROM D3650-5F
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.8 lbs.

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RR	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ST	DRAWING NO.	REV. E
MFG. APPR.	AL	D3650	SHEET 6 OF 8
APPROVED	AP	TITLE	SCALE
DE APPR.	AP	<b>TOP PANEL ASSEMBLY</b>	NTS
DATE	12.10.01	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

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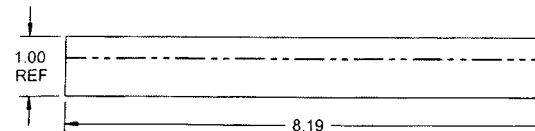
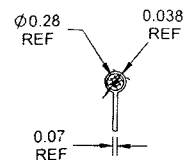
**D3650-5F FWD PANEL (FLAT PATTERN)**

- NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S26GA
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.6 lb

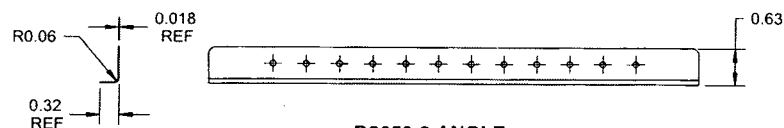
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	<i>[Signature]</i>	DRAWING NO. <b>D3650</b>	REV. E SHEET 7 OF 8
MFG. APPR.	<i>[Signature]</i>	TITLE <b>TOP PANEL ASSEMBLY</b>	SCALE NTS
DE APPR.	<i>[Signature]</i>	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	12.10.01		

RELEASE  
2012-10-09

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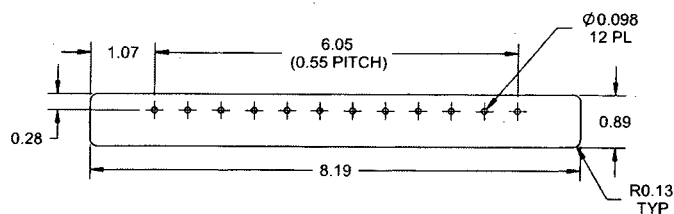


**D3650-7-8.19 SEAL**



**D3650-9 ANGLE**  
(MAKE FROM D3650-9F)

- NOTES:**
- 1) MATERIAL: P/N 8168-1 TADPOLE SEAL (REF. BELL P/N 120-104-1)  
POSSIBLE SUPPLIER: EAGLE COPTERS OR BELL
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.05 lb
  - 8) PART NUMBER: D3650-7-X.XX  
WHERE X.XX = LENGTH IN INCHES  
EG. 12.50" LONG = D3650-7-12.50



**D3650-9F ANGLE (FLAT PATTERN)**

RELEASE  
2012-10-09

**D3650-9F**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S26GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RP	DRAWING NO.	REV. E
MFG. APPR.	RP	<b>D3650</b>	SHEET 8 OF 8
APPROVED	RP	TITLE	SCALE
DE APPR.	RP	<b>TOP PANEL ASSEMBLY</b>	NTS
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